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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,986	09/11/2006	James McCarthy	112701-667	6606
29157	7590	08/19/2008		
BELL, BOYD & LLOYD LLP			EXAMINER	
P.O. Box 1135			SWOFFE, SHERIDAN	
CHICAGO, IL 60690				
			ART UNIT	PAPER NUMBER
			1652	
			NOTIFICATION DATE	DELIVERY MODE
			08/19/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATENTS@BELLBOYD.COM

Office Action Summary**Application No.**

10/559,986

Applicant(s)

MCCARTHY ET AL.

Examiner

SHERIDAN SWOPE

Art Unit

1652

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-44 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Applicants' response of May 16, 2008 is acknowledged. Based on said response, the Election/Restriction requirement below replaces the Election/Restriction requirement of April 23, 2008.

Election/Restriction

Claims 1-44 are pending.

Restriction is required under 35 U.S.C. 121.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, Claims 1-4, 13-21, and 38-42 drawn to a polynucleotide encoding a cysteine protease.

Group II, Claims 5-8 and 24-28, drawn to a polynucleotide encoding a cysteine protease inhibitor.

Group III, Claims 9-12 and 31-35, drawn to a polynucleotide encoding an aspartic endoprotease.

Group IV, Claims 22, 29, 36, and 43, drawn to a transgenic plant comprising a polynucleotide.

Group V, Claims 23 30, 37, and 44, drawn to a method for modulating coffee flavour precursor levels using a polynucleotide.

For each of Inventions I-V above, restriction to one of the following is also required under 35 USC 121. Therefore, election is required of one of Inventions I-V and one of Inventions (A)-(P).

If Group I is elected, elect one of:

- (A.) Encoding SEQ ID NO: 2
- (B.) Encoding SEQ ID NO: 16

If Group II is elected, elect one of:

- (C.) Encoding SEQ ID NO: 4

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- (D.) Encoding SEQ ID NO: 10
- (E.) Encoding SEQ ID NO: 12
- (F.) Encoding SEQ ID NO: 14

If Group III is elected, elect one of:

- (G.) Encoding SEQ ID NO: 6
- (H.) Encoding SEQ ID NO: 8

If Group IV is elected, elect one of:

- (A.) Encoding SEQ ID NO: 2
- (B.) Encoding SEQ ID NO: 16
- (C.) Encoding SEQ ID NO: 4
- (D.) Encoding SEQ ID NO: 10
- (E.) Encoding SEQ ID NO: 12
- (F.) Encoding SEQ ID NO: 14
- (G.) Encoding SEQ ID NO: 6
- (H.) Encoding SEQ ID NO: 8

If Group V is elected, elect one of:

- (I.) Encoding SEQ ID NO: 2
- (J.) Encoding SEQ ID NO: 16
- (K.) Encoding SEQ ID NO: 4
- (L.) Encoding SEQ ID NO: 10
- (M.) Encoding SEQ ID NO: 12
- (N.) Encoding SEQ ID NO: 14
- (O.) Encoding SEQ ID NO: 6
- (P.) Encoding SEQ ID NO: 8

The inventions listed as Groups I-V(A)-(P) do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical feature for the following reasons: The technical feature linking Groups I-V(A)-(P) appears to be that they all relate to proteases. However, proteases were well known in the art. Moreover, Schaller et al, 1996 teaches a polynucleotide encoding a protein having 83% homology to SEQ ID NO: 8, which anticipates Claim 9 (see enclosed alignment). Therefore Groups I-V(A)-(P) share no special technical feature as defined by PCT Rule 13.2, as it does not define a contribution over the prior art. Furthermore, the products of Groups I-IV do

not share a special common structural and functional feature while, the methods of Group V do not comprise all of the methods for making or using the products of Groups I-IV. Accordingly, Groups I-V(A)-(P) are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept.

Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

(a) the inventions have acquired a separate status in the art in view of their different classification;

(b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;

(c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);

(d) the prior art applicable to one invention would not likely be applicable to another invention;

(e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

To insure that each document is properly filed in the electronic file wrapper, it is requested that each of amendments to the specification, amendments to the claims, Applicants' remarks, requests for extension of time, and any other distinct papers be submitted on separate pages.

It is also requested that Applicants identify support, within the original application, for any amendments to the claims and specification.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheridan L. Swope whose telephone number is 571-272-0943. The examiner can normally be reached on M-F; 9:30-7 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Nashed can be reached on 571-272-0934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SHERIDAN SWOPE/
Primary Examiner, Art Unit 1652